in which R¹, R², E, X₁, X₂, and X₃ have the meaning as described in the specification and claims, obtained by culturing *Streptomyces* species HAG 004107 (DSM 13381), and their physiologically tolerable salts and chemical equivalents. The invention furthermore relates to a process for the preparation of the cyclipostins, the microorganism HAG 004107 (DSM 13381), the use of the cyclipostins and their physiologically tolerable salts and chemical equivalents as pharmaceuticals, in particular as inhibitors of lipases, and pharmaceutical preparations which contain cyclipostin or a physiologically tolerable salt or equivalent thereof.

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